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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,771	08/03/2001	Dean Y. Li	HYDR-P01-003	8737

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EXAMINER

QIAN, CELINE X

ART UNIT

PAPER NUMBER

1636

15

DATE MAILED: 07/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/921,771

Applicant(s)

LI, DEAN Y.

Examiner

Celine X Qian

Art Unit

1636

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 02 July 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY [check either a) or b)]**

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☐ they raise the issue of new matter (see Note below);
  - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_

Claim(s) objected to: \_\_\_\_\_

Claim(s) rejected: 18-21 and 24-26.

Claim(s) withdrawn from consideration: \_\_\_\_\_

8. ☐ The proposed drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_
10. ☐ Other: \_\_\_\_\_

*Anne-Marie Falk*  
ANNE-MARIE FALK, PH.D  
PRIMARY EXAMINER

Continuation of 5. does NOT place the application in condition for allowance because: it does not overcome the 112 1st paragraph rejection set forth of the record mailed on 5/20/03. In response to the rejection, Applicants assert that the utility of the claimed invention is not limited to endothelial remodeling. Applicants further assert that the specification teaches other uses for the claimed invention including screen assays to identify agents that affect endothelial cell remodeling, or to provide in vitro cell culture system of physiological relevant cells expressing gene important in endothelial cell development. Applicants allege paragraphs 009, 0018-0022, 0042 and 0046 support such teaching. However, upon reviewing the entire specification (especially the above paragraphs), no teaching can be found for using the claimed tissue culture comprising blood vessel expressing endoglin or Alk-1 to screen agents that affect endothelial cell remodeling, or other uses of such cell culture system. The above mentioned paragraphs teaches genes important in arterial or venous differentiation, promoter or enhancer suitable for endothelial expression, and difficulty in isolating arteries for graft. Such disclosure does not provide any support on how to use the claimed invention, nor does it teach any screen assay as suggested.

Applicants further argue that the specification provides extensive guidance about the role of endoglin and Alk-1 in endothelial development and their interaction with TGFB signaling, as well as how to make endothelial cells and blood vessels comprising endothelial cells. Applicants are reminded that the claimed invention is a tissue culture comprising a blood vessel rather than endoglin or Alk-1 gene. As such, the information about endoglin or Alk-1 genes does not automatically teach how to use the claimed invention. This enablement rejection is based on how to use rather than how to make the claimed blood vessel. Without teaching from the specification, one skilled in the art would have to engage in undue experimentation to use the claimed invention. Therefore, the claimed invention is not enabled.